

Claims

1. Force application element (1), comprising a tensioning anchor (20) to anchor a strip-shaped material (5), in particular, a composite material, to a supporting structure (10), wherein the strip-shaped material (5) is pretensioned by the tensioning anchor (20), characterized in that following the tensioning process an extension element (2, 4, 15) is located in the transition region between the tensioning anchor (20) and the strip-shaped material (5), and that the extension element is effectively attached to the strip-shaped material (5) and the tensioning anchor (20).
2. Force application element (1) according to Claim 1, characterized in that the extension element (2, 4, 15) is attached mechanically and/or by an adhesive (6) to the composite material (5).
3. Force application element (1) according to Claims 1 or 2, characterized in that the extension element is a transverse cross-member (2) and/or a projection (15) of the tensioning anchor.
4. Force application element (1) according to Claims 1 or 2, characterized in that the extension element (4) is attached mechanically and/or by an adhesive (6) to the tensioning anchor (20) and/or to a transverse cross-member (2) of the tensioning anchor (20).
5. Force application element (1) according to one of the foregoing claims, characterized in that the extension element (2, 4, 15) has in particular a hyperbolic, tongue-shaped or wedge-shaped form and tapers down toward the composite material (5) in the direction of the center of the material (5).

6. Force application element (1) according to one of the foregoing claims, characterized in that the extension element (4) is composed of a ductile material, in particular, aluminum, steel, or titanium.
7. Force application element (1) according to one of the foregoing claims, characterized in that the side of the extension element (2, 4, 15) opposite the composite material (5) has an enlarged and structured surface, and is in particular of a wedge-shaped, zigzag-shaped, or wave-shaped design.
8. Extension element (2, 4, 6) for a tensioning anchor (20) which serves to anchor a strip-shaped material (5), in particular, a composite material, to a supporting structure (10), wherein the composite material (5) is pretensioned by a tensioning anchor (20), characterized in that the extension element (4) is designed such that it is movable into effective attachment with the strip-shaped material (5) and the tensioning anchor (20), and that it prevents additional stress peaks in the event of stresses to the strip-shaped material (5) or above the pretension load.
9. Extension element (2, 4, 6) according to Claim 8, characterized in that the extension element is a transverse cross-member (2) and/or a projection (15) of the tensioning anchor.
10. Extension element (2, 4, 6) according to Claims 8 or 9, characterized in that the extension element (2, 4, 15) in particular has a hyperbolic, tongue-shaped, or wedge-shaped form, and tapers down toward the composite material (5) in the direction of the center of the material (5).

11. Extension element (2, 4, 6) according to Claims 8, 9, or 10, characterized in that the extension element (4) is composed of a ductile material, in particular, aluminum, steel, or titanium.
12. Extension element (2, 4, 6) according to Claims 8, 9, 10, or 11, characterized in that the side of the extension element (2, 4, 15) opposite the composite material (5) has an enlarged and structured surface, and is in particular of a wedge-shaped, zigzag-shaped, or wave-shaped design.
13. Method to increase the tensile load of a strip-shaped material (5), in particular, a composite material, wherein the strip-shaped material (5) is pretensioned by a tensioning anchor (20), characterized in that following the tensioning process an extension element (2, 4, 6) is attached to the composite material (5) and the tensioning anchor (20) in the transition region between the tensioning anchor (20) and the strip-shaped material (5), said extension element serving to prevent additional stress peaks in the event of stresses to the material (5) above the pretension load.
14. Method according to Claim 13, characterized in that the extension element (4) is attached to the composite material (5) mechanically and/or by an adhesive (6).
15. Use of a force application element (1) according to Claims 1 through 7 to reinforce a supporting structure (10), in particular, a concrete structure.